

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

FINAL

Title V, Operating

Permit: V-07-010

General Shale Brick, Inc.

Corbin, KY 40702

July 9, 2008

Robert Williams, Reviewer

SOURCE ID: 21-235-00022

AGENCY INTEREST: 4204

ACTIVITY: APE20040001

SOURCE DESCRIPTION:

On March 21, 2003, General Shale Products, LLC (now General Shale Brick, Inc.) submitted a Title V Operating Permit renewal application to the Division. Revisions to the permit application were received by the Division on June 28, 2004 and November 21, 2005. General Shale Brick, Inc. operates a face brick manufacturing plant (Plant #33) adjacent to State Highway 26, 22 miles south of Corbin at Woodbine, Kentucky. The primary SIC code for this facility is 3251.

Initial processing of the raw material, consisting of a combination of clay and shale, takes place in a large building housing storage piles, hoppers, a primary crusher, a secondary crusher, screens, and associated conveyors. After secondary crushing, the raw material is mixed with sand and water and formed into bricks by an extrusion process. The bricks are then dried and vitrified in two natural gas fired tunnel dryer/kilns. Kiln A was installed in 1972 and modified to burn coal in 1982. Kiln B was installed in 1986. Coal is no longer used as fuel for either kiln.

The potential to emit, as defined in 401 KAR 52:001, Section 1 (56), of particulate matter with a diameter of less than 10 micrometers (PM-10), carbon monoxide (CO), and sulfur dioxide (SO₂) for this source are each greater than one hundred (100) tons per year. Additionally, the potential to emit of a single hazardous air pollutant (HAP) and the combined HAPs for this source are greater than 10 and 25 tons per year, respectively. Therefore, the source is a major source under the Title V permitting program, 401 KAR 52:020.

In order to preclude applicability of 401 KAR 59:105, *New Gas Process Streams*, the source has taken voluntary production limits on the two tunnel kilns, identified as Kiln A and Kiln B, such that the emissions of SO₂ are limited to less than 100 tons per year. Such limits were included in initial Title V Permit No. V-99-002, issued May 5, 2000. Additionally, in order to remain below those limits listed in 401 KAR 53:010, *Ambient Air Quality Standards*, for gaseous fluorides (HF) the source has requested to take voluntary production limits on the tunnel kilns such that the hourly rate of brick production will not exceed 7.5 tons per hour, per kiln. Federally enforceable restrictions are included in the permit renewal for the two tunnel kilns to limit emissions and production below the applicability thresholds of 401 KAR 59:105 and 401 KAR 53:010. After incorporation of these federally enforceable restrictions, emissions of PM-10, CO and HAPs are greater than Title V major source thresholds. Therefore, the source will be issued a Title V Operating Permit renewal under 401 KAR 52:020, Title V Permits.

U.S. EPA REVIEW:

The U.S. EPA was notified of the issuance of the proposed permit on May 22, 2008 via e-mail. The comment period expired 45 days from the date of e-mail. No comments were received during this period. The permit is now being issued final.